In the Claims

1. (Currently amended) A method for identifying repeated fields in a video sequence comprising:

determining a first set and, a second set and a third set of motion vectors from fields of same polarity in first, and second and third input video frames of the video sequence, the frames comprising first and second fields; and

identifying a repeated field by comparing a ratio of the first set and second set of motion vectors to a first threshold, and comparing a ratio of the third set of motion vectors and one of the first and second sets of motion vectors to the first threshold, the ratios calculated from sums of magnitudes of motion vectors in two sets.

2. (Currently amended) The method of claim 1, wherein the first set of motion vectors is between a the first field of the first frame and a the first field of the second frame, and the second set of motion vectors is between a the second field of the first frame and a the second field of the second frame.

3. (Cancelled)

4. (Currently amended) The method of claim 3 1 further comprising:

determining a the third set of motion vectors between the first field of the second frame and the first field of the third frame,

wherein identifying further comprises comparing a first ratio of the first set of motion vectors and the second set of motion vectors to the first threshold, comparing a second ratio of the first set of motion vectors and the third set of motion vectors to the first threshold, and identifying a repeated field if the first ratio and the second ratio are less than the first threshold.

5. (Currently amended) The method of claim 3 1 further comprising:

determining a the third set of motion vectors between the first field of the first frame and the first field of the third frame,

wherein identifying further comprises comparing a first ratio of the first set of motion vectors and the third set of motion vectors to the first threshold, comparing a second ratio of the second set of motion vectors and the first set of motion vectors to a second threshold, and identifying a repeated field if the first ratio is less than the first threshold and the second ratio is greater than the second threshold.

6. (Currently amended) The method of claim 3-1 further comprising:

determining a-the third set of motion vectors between the first field of the first frame and the first field of the third frame and a fourth set of motion vectors between the second field of the first frame and the second field of the third frame,

wherein identifying further comprises comparing a first ratio of a magnitude of the sum of the first set of motion vectors minus the third set of motion vectors and the first set of motion vectors to the first threshold, comparing a second ratio of a magnitude of the sum of the second set of motion vectors minus the fourth set of motion vectors and a magnitude of the sum of the first set of motion vectors minus the third set of motion vectors to a second threshold, comparing the third set of motion vectors to the fourth set of motion vectors, and identifying a repeated field if a magnitude of the first ratio is less than the first threshold, a magnitude of the second ratio is greater than the second threshold, and the magnitude of the sum of the third set of motion vectors is less than the magnitude of the sum of the fourth set of motion vectors.

7. (Currently amended) The method of claim 3-1 further comprising:

determining a-the third set of motion vectors between the first field of the first frame and the first field of the third frame,

wherein identifying further comprises comparing a first ratio of the first set of motion vectors and the third set of motion vectors to the first threshold, comparing a second ratio of the second set of motion vectors and the first set of motion vectors to a second threshold, determining whether a repeated field exists if the first ratio is less than the first threshold and the second ratio is greater than the second threshold.

8. (Original) The method of claim 1, wherein the first threshold is a heuristically determined value.

9. (Original) The method of claim 1, wherein if a repeated field is identified, replacing the repeated field with a reference to a field from which the repeated field is repeated.

10. (Previously amended) The method of claim 1, wherein if a repeated field is identified, averaging the repeated field and a field from which the repeated field is repeated.

11. (Currently amended) A video device comprising:

an input configured to received input video frames, the frames comprising first and second fields;

motion vector logic determining a first set, and a second set and a third set of field motion vectors from fields of same polarity in first, and second and third frames; and

a processor identifying a repeated field by comparing a ratio of the first and second sets of field motion vectors to a first threshold, and comparing a ratio of the third set of motion vectors and one of the first and second sets of motion vectors to the first threshold, the ratios calculated from sums of magnitudes of motion vectors in two sets.

12. (Original) The video device of claim 11 wherein if the processor identifies a repeated field, the processor to replace the repeated field with a reference to a field from which the repeated field is repeated.

13. (Original) The video device of claim 11, wherein if the processor identifies a repeated field, the processor to average the repeated field with a reference field from which the repeated field is repeated.

14. (Currently amended) The video device of claim 11 wherein the first set of motion vectors is between a the first field of the first frame and a the first field of the second frame,

said logic further determining ~~a~~ the third set of motion vectors between the first field of the second frame and ~~a~~ the first field of ~~a~~ the third frame, and

wherein identifying further comprises comparing a first ratio of the first set of motion vectors and the second set of motion vectors to the first threshold, comparing a second ratio of the first set of motion vectors and the third set of motion vectors to the first threshold, and identifying a repeated field if the first ratio and the second ratio are less than the first threshold.

15. (Currently amended) The video device of claim 11 wherein the first set of motion vectors is between the ~~a~~ first field of the first frame and the ~~a~~ first field of the second frame, the second set of motion vectors is between ~~a~~ the second field of the first frame and ~~a~~ the second field of the second frame,

said logic further determining ~~a~~ the third set of motion vectors between the first field of the first frame and ~~a~~ the first field of ~~a~~ the third frame, and

wherein identifying further comprises comparing a first ratio of the first set of motion vectors and the third set of motion vectors to the first threshold, comparing a second ratio of the second set of motion vectors and the first set of motion vectors to a second threshold, and identifying a repeated field if the first ratio is less than the first threshold and the second ratio is greater than the second threshold.

16. (Currently amended) The video device of claim 11 wherein the first set of motion vectors is between ~~a~~ the first field of the first frame and ~~a~~ the first field of the second frame, the second set of motion vectors is between ~~a~~ the second field of the first frame and ~~a~~ the second field of the second frame,

said logic further determining ~~a~~ the third set of motion vectors between the first field of the first frame and ~~a~~ the first field of ~~a~~ the third frame and a fourth set of motion vectors between the second field of the first frame and ~~a~~ the second field of the third frame, and

wherein identifying further comprises comparing a first ratio of a magnitude of the sum of the first set of motion vectors minus the third set of motion vectors and the first

set of motion vectors to the first threshold, comparing a second ratio of a magnitude of the sum of the second set of motion vectors minus the fourth set of motion vectors and a magnitude of the sum of the first set of motion vectors minus the third set of motion vectors to a second threshold, comparing the third set of motion vectors to the fourth set of motion vectors, and identifying a repeated field if a magnitude of the first ratio is less than the first threshold, a magnitude of the second ratio is greater than the second threshold, and the magnitude of the sum of the third set of motion vectors is less than the magnitude of the sum of the fourth set of motion vectors.

17. (Currently amended) The video device of claim 11, wherein the first set of motion vectors is between a-the first field of the first frame and a-the first field of the second frame, the second set of motion vectors is between a-the second field of the first frame and a-the second field of the second frame,

said logic further determining a-the third set of motion vectors between the first field of the first frame and a-the first field of a-the third frame, and

wherein identifying further comprises comparing a first ratio of the first set of motion vectors and the third set of motion vectors to the first threshold, comparing a second ratio of the second set of motion vectors and the first set of motion vectors to a second threshold, determining whether a repeated field exists if the first ratio is less than the first threshold and the second ratio is greater than the second threshold.

18. (Currently amended) A computer readable medium storing executable computer program instructions which, when executed by a processor, cause the processor to perform a method comprising:

determining a first, and second and third set of motion vectors from fields of same polarity in first and, second and third input video frames, the frames comprising first and second frames; and

determining whether a repeated field exists by comparing a ratio of the first and second set of motion vectors to a first threshold, and comparing a ratio of the third set of

motion vectors and one of the first and second sets of motion vectors to the first threshold, the ratios calculated from sums of magnitudes of motion vectors in two sets.

19. (Original) The computer readable medium of claim 18, wherein if a repeated field is found, replacing the repeated field with a reference to a field from which the repeated field is repeated.

20. (Currently amended) The computer readable medium of claim 18, wherein the first set of motion vectors is between a-the first field of the first frame and a-the first field of the second frame, and the second set of motion vectors is between a-the second field of the first frame and a-the second field of the second frame, the method further comprising:

determining a-the third set of motion vectors between the first field of the second frame and a-the first field of a-the third frame,

wherein identifying further comprises comparing a first ratio of the first set of motion vectors and the second set of motion vectors to the first threshold, comparing a second ratio of the first set of motion vectors and the third set of motion vectors to the first threshold, and identifying a repeated field if the first ratio and the second ratio are less than the first threshold.

21. (Currently amended) The computer readable medium of claim 18, wherein the first set of motion vectors is between a-the first field of the first frame and a-the first field of the second frame, the second set of motion vectors is between a-the second field of the first frame and a-the second field of the second frame, said method further comprising:

determining a-the third set of motion vectors between the first field of the first frame and athe first field of a-the third frame; and

wherein identifying further comprises comparing a first ratio of the first set of motion vectors and the third set of motion vectors to the first threshold, comparing a second ratio of the second set of motion vectors and the first set of motion vectors to a second threshold, and identifying a repeated field if the first ratio is less than the first threshold and the second ratio is greater than the second threshold.

22. (Currently amended) The computer readable medium of claim 18 wherein the first set of motion vectors is between a-the first field of the first frame and a-the first field of the second frame, the second set of motion vectors is between a-the second field of the first frame and a-the second field of the second frame, said method further comprising:

determining a-the third set of motion vectors between the first field of the first frame and a-the first field of a-the third frame and a fourth set of motion vectors between the second field of the first frame and a-the second field of the third frame,

wherein identifying further comprises comparing a first ratio of a magnitude of the sum of the first set of motion vectors minus the third set of motion vectors and the first set of motion vectors to the first threshold, comparing a second ratio of a magnitude of the sum of the second set of motion vectors minus the fourth set of motion vectors and a magnitude of the sum of the first set of motion vectors minus the third set of motion vectors to a second threshold, comparing the third set of motion vectors to the fourth set of motion vectors, and identifying a repeated field if a magnitude of the first ratio is less than a magnitude of the first threshold, the a magnitude of second ratio is greater than the second threshold, and the magnitude of the sum of the third set of motion vectors is less than the magnitude of the sum of the fourth set of motion vectors.

23. (Currently amended) The computer readable medium of claim 18 wherein the first set of motion vectors is between a-the first field of the first frame and a-the first field of the second frame, the second set of motion vectors is between a-the second field of the first frame and a-the second field of the second frame, said method further comprising:

determining a- the third set of motion vectors between the first field of the first frame and a-the first field of a-the third frame,

wherein identifying further comprises comparing a first ratio of the first set of motion vectors and the third set of motion vectors to the first threshold, comparing a second ratio of the second set of motion vectors and the first set of motion vectors to a second threshold, determining whether a repeated field exists if the first ratio is less than the first threshold and the second ratio is greater than the second threshold.

24. (Currently amended) An apparatus comprising:

means for determining a first set, and a second set and a third set of motion vectors from fields of same polarity in first, and second and third input video frames of a video sequence, the frames comprising first and second fields; and

means for identifying a repeated field by comparing a ratio of the first set and second set of motion vectors to a first threshold, and comparing a ratio of the third set of motion vectors and one of the first and second sets of motion vectors to the first threshold, the ratios calculated from sums of magnitudes of motion vectors in two sets.

25. (Currently amended) The apparatus of claim 24, wherein the first set of motion vectors is between a the first field of the first frame and a the first field of the second frame, and the second set of motion vectors is between a the second field of the first frame and a the second field of the second frame.

26. (Cancelled)

27. (Currently amended) The apparatus of claim 24 further comprising:

replacing the repeated field with one of a reference to a field from which the repeated field is repeated and an average of the repeated field and a field from which the repeated field is repeated.